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#3/Election
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IN THE UNITED STATES
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PATENT APPLICATION

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CASE: 60-40-1-1

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TC 2800 MAIL ROOM

TITLE: STACKED MODULE PACKAGE

SERIAL NO. 09/964,009

GROUP ART UNIT 2814

FILING DATE 09/14/00
Erdem

EXAMINER DiLinh P. Nguyen

**THE COMMISSIONER OF PATENTS AND TRADEMARKS
WASHINGTON, D.C. 20231**

SIR:

This paper is in response to the Office action mailed 04/25/02, and the requirement for ELECTION OF SPECIES set forth in that Office action.

To be responsive to the requirement for election of species, applicants elect to prosecute the species designated "Embodiment 1: fig. 3", as identified in the election requirement. However, applicants point out that all pending claims of the application read on this embodiment.

The election is made WITH TRAVERSE because the election requirement is not believed to be necessary or proper.

To review the application, the figures, and the claims, the invention is

directed to a stacked MCM package in which both RF and digital MCMs are stacked together. The I/Os in the RF MCM are isolated from the digital MCM by routing dedicated RF I/O interconnections straight through the digital MCM. The I/O interconnections comprise solder bumps in the stacked module package, and a through hole interconnection through the intermediate substrate, typically through the digital MCM substrate. An RF shield is provided for the RF MCM using a ground plane in the RF MCM board, preferably a dedicated ground plane, and a metal shield over the top of the RF MCM. In one modification, the solder bumps in the gap between MCM substrates in the stack are shielded using a Faraday cage.

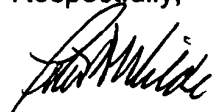
With reference to the figures identified in the election requirement, Figs 3 and 4 are presented to illustrate the types of MCM packages to which the invention is potentially applicable. Fig. 6 and 8 show two embodiments of the basic RF-DIGITAL module. Fig. 6 is illustrated with a digital MCM similar to that shown in Fig. 3, and Fig. 8 illustrates the invention with a digital MCM similar to that shown in Fig. 4. Figs. 9-11 shown a modification of the invention wherein a Faraday cage is *added* to the basic RF-DIGITAL MCM.

Claims 1-9 read on any of Figs. 3, 4, and 6-11. Claims 10-16 specify a Faraday cage but also contain an MCM according to any of Figs 3,4, and 6-8. The Faraday cage of Figs. 9-11 is IN ADDITION to the basic MCM module of Figs. 6 and 8. The claims therefore are organized as if to cover invention A and invention A plus B. Such a case is not believed to require, or justify, restriction.

In the event that the Examiner concludes that a telephone call would

advance the prosecution of this application, the Examiner is invited and encouraged to call the undersigned attorney at Area Code 757-258-9018.

Respectfully,



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